International Application No.: PCT/JP2005/014551

U.S. Patent Application No.: Unknown

April 5, 2006 Page 6 of 10

## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **LISTING OF CLAIMS:**

Claims 1-7 (canceled).

Claim 8 (new): A balanced-type surface acoustic wave filter with a balanced-tounbalanced conversion function including an unbalanced signal terminal and first and second balanced signal terminals, the balanced-type surface acoustic filter comprising:

a piezoelectric substrate;

a first longitudinally coupled resonator-type surface acoustic wave filter portion having first to third IDTs disposed along a propagation direction of a surface wave on the piezoelectric substrate, a middle second IDT of the first to third IDTs being connected to the unbalanced signal terminal; and

a second longitudinally coupled resonator-type surface acoustic wave filter portion having fourth to sixth IDTs disposed along the propagation direction of the surface wave on the piezoelectric substrate, the fourth IDT connected to the first IDT, and the fifth IDT connected to the first and second balanced signal terminals; wherein

an electric signal passing through a signal line connecting the first IDT and the fourth IDT is about 180 degrees different in phase from an electric signal passing through a signal line connecting the third IDT and the sixth IDT; and

in the first longitudinally coupled resonator-type surface acoustic wave filter portion, in at least one of the portion where the first and second IDTs are adjacent to each other and the portion where the second and third IDTs are adjacent to each other, in at least one of the adjacent IDTs, weighting is provided on a plurality of electrode fingers including an outermost electrode finger which is the closest to the adjacent IDT.

Claim 9 (new): The balanced-type surface acoustic wave filter as claimed in claim 8, wherein, out of the at least one of the portion where the first and second IDTs are adjacent to each other and the portion where the second and third IDTs are

International Application No.: PCT/JP2005/014551

U.S. Patent Application No.: Unknown

April 5, 2006 Page 7 of 10

adjacent to each other, the weighting is provided in a portion in which the adjacent

outermost electrode fingers have the same polarity.

Claim 10 (new): The balanced-type surface acoustic wave filter as claimed in

claim 8, wherein the weighting is provided such that the length of a plurality of electrode

fingers including the outermost electrode finger is different from the other electrode

fingers.

Claim 11 (new): The balanced-type surface acoustic wave filter as claimed in

claim 10, wherein the weighting is a cross-width weighting.

Claim 12 (new): The balanced-type surface acoustic wave filter as claimed in

claim 10, wherein the weighting is a series weighting.

Claim 13 (new): The balanced-type surface acoustic wave filter as claimed in

claim 8, wherein the electrode fingers in which the weighting is performed are disposed

in a narrow-pitched electrode-finger portion.

Claim 14 (new): The balanced-type surface acoustic wave filter as claimed in

claim 8, wherein, in the second longitudinally coupled resonator-type surface acoustic

wave filter portion, the number of electrode fingers of the fifth IDT located in the middle

in the propagation direction of the surface wave is an even number.

Claim 15 (new): The balanced-type surface acoustic wave filter as claimed in

claim 8, wherein one terminal of the fifth IDT in the middle of the second longitudinal

resonator-type surface acoustic wave filter portion is connected to a first balanced

terminal, and the other terminal is connected to a second balanced signal terminal.

Claim 16 (new): The balanced-type surface acoustic wave filter as claimed in

claim 8, wherein the first longitudinally coupled resonator-type surface acoustic filter

International Application No.: PCT/JP2005/014551

U.S. Patent Application No.: Unknown

April 5, 2006 Page 8 of 10

portions includes reflectors disposed at both sides in the surface wave propagation

direction of an area in which the first to third IDTs are disposed.

Claim 17 (new): The balanced-type surface acoustic wave filter as claimed in

claim 8, wherein the second longitudinally coupled resonator-type surface acoustic filter

portions includes reflectors disposed at both sides in the surface wave propagation

direction of an area in which the fourth to sixth IDTs are disposed.

Claim 18 (new): The balanced-type surface acoustic wave filter as claimed in

claim 8, wherein the first and second longitudinally coupled resonator-type surface

acoustic filter portions are cascade connected to one another.

Claim 19 (new): The balanced-type surface acoustic wave filter as claimed in

claim 8, wherein the piezoelectric substrate is a 40 ± 5 degree, Y-cut, X-propagation

LiTaO<sub>3</sub> substrate.